THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 21

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

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Ex parte YUKIO FUKUSHIMA
and JUNICHI KIMURA

_____

Appeal No. 1998-0988
Application No. 08/268,861

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ON BRIEF

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Before HAIRSTON, KRASS, and FRAHM, Administrative Patent Judges.

KRASS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the final rejection of claims 1 and 3 through 7, all of the claims pending in the application.

The invention is directed to the unlocking of an actuator in a disk storage apparatus.

Representative independent claim 1 is reproduced as follows:

1. A disk storage apparatus comprising:

a housing;

a disk storage medium rotatably mounted to said housing;

an actuator including a transducer head at one end for communicating information with the storage medium;

a coil attached to the actuator for controlling the movement of the actuator and the transducer by varying the current to the coil;

a magnetic locking apparatus for locking the actuator, said magnetic locking apparatus comprising a permanent magnet and a member attracted by said permanent magnet, wherein one of said permanent magnet and said attracted member is attached to said actuator, and the other of said permanent magnet and said attracted member is attached to said housing, said permanent magnet and attracted member being mounted such that, when said actuator is in a locked position, said attracted member is held by said permanent magnet; and

an actuator unlocking apparatus including:

means for supplying a first predetermined drive current to said coil generating a force against said magnetic force of said magnetic locking apparatus to unlock said actuator from said magnetic locking apparatus; and

means for supplying a second predetermined drive current to said coil, said second current in the opposite direction to said first predetermined drive current, wherein said second predetermined drive current is selected to stop motion caused by said first predetermined drive current and stop said actuator within the data zone of said disk storage medium.

The examiner relies on the following references:

Carteau et al. (Carteau)	4,786,994	Nov. 22, 1988
Stefansky	5,025,335	June 18, 1991

Claim 1 stands rejected under 35 U.S.C. § 102(b) as anticipated by Stefansky. Claims 3 through 7 stand rejected under 35 U.S.C. § 103 as unpatentable over Stefansky in view of Carteau.

Reference is made to the brief and answer for the respective positions of appellants and the examiner.

OPINION

We reverse.

Anticipation is established only when a single prior art reference discloses, expressly or under the principles of inherency, each and every element of a claimed invention as well as disclosing structure which is capable of performing the recited functional limitations. RCA Corp. v. Applied Digital Data Sys., Inc., 730 F.2d 1440, 1444, 221 USPQ 385, 388 (Fed. Cir.); cert. dismissed, 468 U.S. 1228 (1984); W.L. Gore and Assoc. Inc. v. Garlock, Inc., 721 F.2d 1540, 1554, 220 USPQ 303, 313 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984).

At pages 4-5 of the answer, the examiner applies Stefansky to the elements of claim 1 and, up until the portion of claim 1 reciting “an actuator unlocking apparatus including:,” we agree with the examiner’s analysis. Claim 1 requires that the actuator unlocking apparatus include the supply of a predetermined drive current and a second predetermined drive current such that the currents are in opposite directions and the second drive current is selected to stop motion caused by the first drive current so that the actuator is stopped within the data zone of the disk storage medium.

The examiner relies on the disclosure of Stefansky, at column 7, lines 11-20, for a teaching of this claim limitation. That section of Stefansky does, indeed, disclose currents passing in opposite directions in the coil so that the actuator arm may be pivoted to selected locations. However, this portion of Stefansky is describing the motion of the actuator to move the head to various locations on the disk but it does not describe anything regarding an "actuator unlocking apparatus," as claimed. Thus, while Stefansky may employ two oppositely directed currents for moving an actuator arm, the reference is silent with regard to the two claimed predetermined drive currents for unlocking the actuator.

Stefansky does mention unlocking the actuator but does so at column 15, lines 1-6, wherein it is noted that the actuator arm is released from the magnetic parking unit by the force generated by actuator assembly 48 and that no mechanical means are necessary for effecting this release. However, the reference is silent as to the specifics of the release. There is no disclosure or suggestion of two predetermined drive currents to perform this function in the manner claimed.

Thus, without resorting to speculation, we cannot say that each and every element of claim 1 is disclosed by Stefansky. Accordingly, we will not sustain the rejection of claim 1 under 35 U.S.C. § 102(b).

We now turn to the rejection of claims 3 through 7 under 35 U.S.C. § 103.

The examiner turns to Carteau to supply the teaching of supplying each of the claimed currents for a "predetermined time," as set forth in independent claim 3. While Carteau does disclose current ramps applied for a predetermined time, Carteau does not provide for the deficiency of Stefansky in that there is no suggestion in Carteau that its teachings are applied to an actuator unlocking apparatus, as claimed. The examiner refers to system SCT in Carteau in which a mechanism moves between a loaded and unloaded position but it is unclear how this relates to the locking and unlocking of an actuator arm. As described at column 7, lines 39-41, of Carteau, the "loaded" position refers to the head hovering at some height above the disk and the "unloaded" position refers to the head being at an even greater height above the disk. Accordingly, we will not sustain the rejection of claim 3 under 35 U.S.C. § 103.

Independent claim 5 contains limitations similar to claim 1 in the supply of a first and second predetermined drive current, but of a "predetermined amperage and duration." Accordingly, we find no evidence of the obviousness of this

claimed subject matter based on the references applied by the examiner.

The examiner's decision rejecting claim 1 under 35 U.S.C. § 102(b) and claims 3 through 7 under 35 U.S.C. § 103 is reversed.

REVERSED

KENNETH W. HAIRSTON Administrative Patent Judge	)	
ERROL A. KRASS Administrative Patent Judge	)	BOARD OF PATENT APPEALS AND INTERFERENCES
ERIC FRAHM Administrative Patent Judge	)	

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